

CLAIMS

- 5 1. A process for purifying double-stranded DNA, comprising
using ceramic hydroxyapatite column chromatography.
2. A process for purifying double-stranded DNA, comprising
using two chromatographic steps, of which one is ceramic hydroxyapatite column
chromatography.
- 10 3. The process according to claim 2, further comprising using
affinity chromatography or ion exchange chromatography.
4. The process according to claim 3, wherein the affinity
chromatography involves triple helix formation between the DNA and an immobilized
oligonucleotide.
- 15 5. The process according to claim 3, wherein the ion exchange
chromatography is anion exchange chromatography.
6. The process according to claim 1, further comprising a step of
diafiltration.
7. The process according to claim 2, further comprising a step of
diafiltration.
- 20 8. The process according to claim 3, further comprising a step of
diafiltration.
9. The process according to claim 4, further comprising a step of
diafiltration.
10. The process according to claim 5, further comprising a step of
25 diafiltration.
11. A process for purifying double-stranded DNA, comprising
chemical lysing of cells,

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a

~~diafiltration~~
diafiltration

using ceramic hydroxyapatite column chromatography, and

using affinity chromatography involving triple helix formation between the DNA and an immobilized oligonucleotide.

- 5 12. The process according to claim 1, wherein the double-stranded DNA is a plasmid.
13. The process according to claim 2, wherein the double-stranded DNA is a plasmid.
14. The process according to claim 3, wherein the double-stranded
- 10 DNA is a plasmid.
15. The process according to claim 4, wherein the double-stranded DNA is a plasmid.
16. The process according to claim 5, wherein the double-stranded DNA is a plasmid.
- 15 17. The process according to claim 6, wherein the double-stranded DNA is a plasmid.
18. The process according to claim 7, wherein the double-stranded DNA is a plasmid.
19. The process according to claim 8, wherein the double-stranded
- 20 DNA is a plasmid.
20. The process according to claim 9, wherein the double-stranded DNA is a plasmid.
21. The process according to claim 10, wherein the double-stranded DNA is a plasmid.
- 25 22. The process according to claim 11, wherein the double-stranded DNA is a plasmid.
23. A purified recombinant plasmid DNA composition, comprising a chromosomal DNA content that is less than or equal to 0.01%.

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24. A purified recombinant plasmid DNA composition according to claim 23, comprising a content of endotoxin that is less than or equal to 50 EU/mg.

25. The purified recombinant plasmid DNA composition according to claim ²⁶24, wherein the content of endotoxin is less than or equal to 10 EU/mg.

~~26. A composition comprising DNA obtained according to claim 1~~

~~and a carrier~~

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